Expedited Site Assessment

presented to

BCT Workshop

by

Expedited Site Assessment and BCT Workshops

- Why is ESA Important to BCTs
  - Reduce Timeframes for Decisions
  - Reduce Costs
  - Achieve Regulatory Agency Concurrence
- Ensure BCTs Aware of Latest Techniques

Traditional Approach to Site Assessment

- Regulatory Driven - EPA
  - Preliminary Assessment (PA)
  - Site Inspection (SI)
  - Hazardous Ranking System (HRS)
- Private/Commercial
  - Phase I/Phase II assessments

Why is Traditional So Slow?

- Cost and Duration
- Timing
- Ambiguous Endpoints
- Future Land Use
- Lack of Flexibility

Expediting and Improving the Process
Potential Methods

- Phase I/Phase II Approach
- Risk-Based Corrective Action (RBCA)
- PA/SI with soil pre-screening
- ASTM Expedited Site Characterization

Expediting and Improving the Process Application of Private Phase I/Phase II

- Benefits:
  - Similar approach to site assessment creates better comparison basis for public and private sites
  - Sites with no contamination are screened out early, with minimal costs and time
- Risks:
  - Significant risk posed by contaminants may not be accurately assessed

Expediting and Improving the Process Risk Based Corrective Action (RBCA)

- RBCA principles applied to Phase I/Phase II protocols
- Analysis of migration pathways in the context of future use
- Applies data acquired from Phase I & II to determine if significant risk is posed to sensitive receptors

Expediting and Improving the Process RBCA (cont.)

- Benefits:
  - Application of RBCA provides confidence that proposed developments and land use concur with Federal risk conclusions
  - Provides EPA with mechanism to match cleanup requirements with current or future land use
- Risks
  - Increases risk that the significance of risk posed by contaminants found at the site may not be accurately assessed

Expediting and Improving the Process Soil Pre-Screening

- Prior to conducting PA/SI an initial pre-screening of soils to determine presence or absence of contamination

Expediting and Improving the Process Soil Pre-Screening (cont.)

- Benefits:
  - Allows EPA to design pre-screen protocol to match Phase I, converging public and private sector approaches
  - Sites with no contamination are removed from the process before PA
  - Potential reduction in costs
- Risks:
  - Pre-screening may not detect potential contaminant threats, leaving EPA open for liability threat

Expediting and Improving the Process Soil Pre-Screening - Example

- Oregon's Department of Environmental Quality (DEQ)
  - Used Soil Screening at 60-65 sites
  - Only 17% warrented entry in PA/SI process
  - Oregon's program allows for flexibility in professional judgment, saving time and money on pre-screening sites

Expediting and Improving the Process Expedited Site Assessment (ESA)

- Expedited Site Characterization (ESC)
  - Generally applicable to:
    - large scale projects
    - sites with complex contaminant characteristics and heterogeneity's in the site
    - complex contaminant migration pathways

Expediting and Improving the Process ESC (cont.)

- An objective based analysis
- On-site decision making by a "multidisciplinary" technical team
- Dynamic work plan; providing flexibility to change the plan to meet the objectives
- Significant cost and schedule savings

"Which One Do I Use? When?" Questions

- Site History
- Site Geology
- Community Setting
- Budget